[illegible]

[illegible] Date: [illegible]

SUBJECT: BITUMINOUS MIXES

(SUITABILITY OF BITUMINOUS MIX)

Sub: To determine the suitability of bituminous mix for DBM mix sample.

Project: Development of roads and drains at Kogilu Layout, Main and Cross Roads in Ward No.15 (Jakkur Purameshwara Sub-division.)

Ref: Material testing(NMC/DM/2).

Received for: Assistant Executive Engineer,
Yelahanka Depot Division,
BBMP, Bangalore.

Name of the Agency/Contractor: M/s Venkateswara, Bangalore.

TEST RESULTS

Job 1: Properties of DBM (G-2) Mix

S. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshal Stability (75 blows) at 60°C, kgs	1250	900
2	Marshall Flow at 60°C, mm.	3.42	2.0 – 4.0

The result of the materials tested meets the standards and hence can be used for the work.

Sample Collected Site : 3rd Cross Road, Ch:30 Mtrs to 60 Mtrs.

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NEWZEN CONSULTANTS BANGALORE

NEW TECHNOLOGIES TO INNOVATE

NC/QC/YPD/2020-21/KL-DBM5 **Date: 19-04-2021**

LTEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.

{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.52 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**98.40**	90-100
19.0	**83.90**	71-95
13.20	**76.35**	56-80
4.75	**45.05**	38-54
2.36	**38.65**	28-42
0.300	**16.20**	7-21
0.075	**5.75**	2-8

The result of the materials tested meets the standards and hence can be used for the work.

Sample Collected Site : 3rd Cross Road Ch:192.50m to 222.50m

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Date: 19-04-2021

NC/QC/YPD/2020-21/KL-DS5

LTEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.
(Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}
Ref: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	1264	900
2	Marshall Flow at 60°C, mm.	3.52	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 3rd Cross Road Ch:192.50m to 222.50m

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Date: 20-04-2021

NC/QC/YPD/2020-21/KL-DBM6

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.53 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	100	100
26.5	95.45	90-100
19.0	83.10	71-95
13.20	71.60	56-80
4.75	47.10	38-54
2.36	34.80	28-42
0.300	19.25	7-21
0.075	6.90	2-8

The result of the materials tested meets the standards and hence can be used for the work.

Sample Collected Site : 2nd Cross Road Ch:176.50m to 198.50m

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NC/QC/YPD/2020-21/KL-DS6 Date: 20-04-2021

1.TEST REPORT ON BITUMINOUS MIXES :

(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	1258	900
2	Marshall Flow at 60°C, mm.	3.46	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 2nd Cross Road Ch:176.50m to 198.50m.

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NC/QC/PD/2020-21/KL-DBM7 Date: 20-04-2021

LTEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}

Ref. Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.54 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	100	100
26.5	98.15	90-100
19.0	82.60	71-95
13.20	73.45	56-80
4.75	49.70	38-54
2.36	32.05	28-42
0.300	16.90	7-21
0.075	5.65	2-8

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 1st Cross Road Ch:180.00m to 210.00m.

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NZC/YPD/2020-21/KL-097 Date: 20-04-2021

LTEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub : To determine the stability of bituminous mix for DBM mix sample.
[Project* Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.]
Ref. Material testing PMC/20-21,
Report Required for : Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor* : G. Venkategowda, Bangalore

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	1260	900
2	Marshall Flow at 60°C, mm.	3.52	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 1st Cross Road Ch:180.00m to 210.00m

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NEW TECHNOLOGIES TO INNOVATE

Date: 21-04-2021

NC/QC/YPD/2020-21/KL-DBM8

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.53 %**

2. Gradation Test
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	100	100
26.5	93.25	90-100
19.0	81.10	71-95
13.20	74.65	56-80
4.75	46.30	38-54
2.36	33.95	28-42
0.300	18.10	7-21
0.075	6.45	2-8

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : Bande Road Ch:643.00m to 673.00m

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NC/QC/YPD/2020-21/KL-DS8

Date: 21-04-2021

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	1262	900
2	Marshall Flow at 60°C, mm.	3.50	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : Bande Road Ch:643.00m to 673.00m

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NEW TECHNOLOGIES TO INNOVATE

NC/QC/YPD/2020-21/KL-DBM9 Date: 21-04-2021

LTEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.52 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**98.40**	90-100
19.0	**83.90**	71-95
13.20	**71.35**	56-80
4.75	**48.05**	38-54
2.36	**36.65**	28-42
0.300	**16.20**	7-21
0.075	**5.70**	2-8

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 1st Cross Road Ch:210.00m to 240.00m

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NC/QC/YPD/2020-21/KL-DS9

Date: 21-04-2021

LTEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	1262	900
2	Marshall Flow at 60°C, mm.	3.54	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 1st Cross Road Ch:210.00m to 240.00m

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NEW TECHNOLOGIES TO INNOVATE

NC/QC/YPD/2020-21/KL-BB1 Date: 15-04-2021

1. TEST REPORT ON BITUMEN SAMPLE:

Sub: Testing of Bitumen sample VG-30 Grade.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.
Technical Reference: Ministry of Road Transport and Highways, V Revision, 2013 and IS 73: 1992.

TABLE 1.1 ;

SL No	Details	Test Results	Requirements as per I.S 73 –1992 Specifications
1.	Penetration at 25° C	51.80° C	Min. 45
2.	Ductility Value at 25° C	108.0 cm	40
3.	Flash point	239° C	Minimum 220° C
4.	Softening point	50.20° C	Min. 47

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 2nd Cross Road

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NC/QC/YPD/2020-21/KL-CB1 Date: 15-04-2021

1. TEST REPORT ON COARSE AGGREGATE:

Sub: Testing of Coarse Aggregate used in Bituminous Concrete.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TABLE 1.1:

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)- 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	22.89 %	Not more than 24.00 %
2.	Combined Flakiness and Elongation index, %	27.56 %	Not more than 35.0 %
3.	Water absorption, %	0.42%	Not more than 2.0 %
4.	Specific gravity	2.62	------
5.	Soundness	5.38%	Max. 12 % in Sodium Sulphate

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 2nd Cross Road

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NEW TECHNOLOGIES TO INNOVATE

NC/QC/YPD/2020-21/KL-BC1

Date: 22-04-2021

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.41 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	100	100
13.2	97.25	90-100
9.5	83.10	70-88
4.75	65.50	53-71
2.36	52.70	42-58
1.18	44.25	34-48
0.600	32.75	26-38
0.300	24.60	18-28
0.150	18.25	12-20
0.075	7.15	4-10

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 2nd Cross Road Ch:116.50m to 146.50m

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NC/QC/YPD/2020-21/KL-BS1

Date: 22-04-2021

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1368**	900
2	Marshall Flow at 60°C, mm.	**3.56**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 2nd Cross Road Ch:116.50m to 146.50m

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NEW TECHNOLOGIES TO INNOVATE

NC/QC/YPD/2020-21/KL-BC2 Date: 22-04-2021

LTEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.42%**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	100	100
13.2	97.25	90-100
9.5	83.15	70-88
4.75	67.45	53-71
2.36	53.80	42-58
1.18	45.70	34-48
0.600	33.50	26-38
0.300	21.60	18-28
0.150	17.25	12-20
0.075	8.95	4-10

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 1st Cross Road Ch:0.00m to 30.00m

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NC/QC/YPD/2020-21/KL-BS2 Date: 22-04-2021

LTEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1352**	900
2	Marshall Flow at 60°C, mm.	**3.44**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 1st Cross Road Ch:0.00m to 30.00m

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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NEW TECHNOLOGIES TO INNOVATE

W/QC/APD/2020-21/KL-BC3 Date: 23-04-2021

LIEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub To determine the percentage of bitumen and gradation for BC mix sample.
(Project : Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.)

Ref. Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor* : G. Venkategowda, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.43 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	100	100
13.2	96.70	90-100
9.5	81.30	70-88
4.75	66.95	53-71
2.36	54.40	42-58
1.18	42.70	34-48
0.600	34.05	26-38
0.300	23.15	18-28
0.150	18.55	12-20
0.075	7.60	4-10

The result of the materials tested meets the standards and hence can be used for the work.

Sample Collected Site : Bande Road Ch:210.00m to 240.00m

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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NEW TECHNOLOGIES TO INNOVATE

NC/QC/YPD/2020-21/KL-BS3 Date: 23-04-2021

LTEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No.05 (Jakkur) Byatarayanapura Sub division.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1356**	900
2	Marshall Flow at 60°C, mm.	**3.44**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : Bande Road Ch:210.00m to 240.00m

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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NC/QC/YPD/2020-21/KL-BC4 Date: 24-02-2021

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Developments of roads and drains at Kogilu Layout Main and Cross Roads in Ward No 05 (Jakkur) Byatarayanapura Sub division.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: G. Venkategowda, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.42 %**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	100	100
13.2	95.35	90-100
9.5	84.45	70-88
4.75	68.95	53-71
2.36	53.25	42-58
1.18	45.70	34-48
0.600	33.65	26-38
0.300	25.90	18-28
0.150	18.65	12-20
0.075	7.15	4-10

The result of the materials tested meets the standards and hence can be used for the work.
Sample Collected Site : 2nd Cross Road Ch:176.50m to 198.50m

Asst. Executive Engineer
Project Division
BBMP, [illegible] Zone

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